

Claim 1 (Currently Amended) An adsorbing material comprising at least one porous functional solid incorporated in a polymer matrix, said adsorbing material containing the porous functional solid in an amount of 45 to 80 wt.% relative to the weight of the finished and activated adsorbing material, and said polymer matrix comprising at least one organic polymer, and having a secondary pore volume in addition to the primary pore volume of the porous functional solid, wherein the secondary pore diameter ranges between 4 nm to 3000 nm.

Claim 2 (Original) An adsorbing material according to claim 1, wherein the amount of the organic polymer is 20 to 55 wt.% relative to the weight of the finished and activated adsorbing material.

Claim 3 (Canceled).

Claim 4 (Currently Amended) An adsorbing material according to claim 3, wherein the porous functional solid comprises zeolites of the groups 1, 2, 3, 4, 5, 6 and 7, compositions with structures iso-type, respectively, iso-morphous to the aforementioned types of zeolites, silica gels, silica-cogels and any combination thereof.

Claim 5 (Original) An adsorbing material according to claim 4, wherein the zeolites of the groups 1, 2, 3, 4, 5, 6 and 7 are selected from the members of the zeolite families A, X and Y.

Claim 6 (Currently Amended) An adsorbing material according to ~~any of~~ claims 1 ~~to 5~~, wherein the decomposition temperature of the organic polymer is 180 to 450°C, ~~preferably 230 to 400°C and more preferably 250 to 380°C,~~ provided that the organic polymer is subjected to heat treatment at said decomposition temperatures for a duration of at least 1h.

Claim 7 (Currently Amended) An adsorbing material according to ~~any of~~
claims 1 to 6, wherein the melting temperature of the organic polymer is 100 to
390°C, ~~preferably 180 to 300°C and more preferably 220 to 270°C.~~

Claim 8 (Original) An adsorbing material according to any of claim 1 to 7,
wherein the organic polymer is selected from thermoplastics.

Claim 9 (Canceled).

Claim 10 (Canceled).

Claim 11 (Original) A shaped article comprising or consisting of an adsorbing
material as defined in any of claims 1 to 10.

Claim 12 (Original) A shaped article according to claim 11 having a water
adsorption capacity as measured at 80% relative humidity and at 25°C of at
least 18 wt.% (relative to the weight of the finished and activated shaped
article).

Claim 13 (Original) A shaped article according to claim 11 ~~or 12~~ having a
compressive strength of 150 N/mm² or higher, ~~preferably 80 N/mm² or higher~~
~~and more preferably 50 N/mm² or higher~~ as measured by tensile/compressive
testing machine model 30 1455 from Zwick with a 20 kN gauge from Zwick
and a piston displacement rate of 1mm/min.

Claim 14 (Original) A shaped article according to ~~one of~~ claims 11 to 13
having a honeycombed geometry.

Claim 15 (Original) A method for preparing a shaped article ~~as defined in any of claims 11 to 14, said method~~ comprising the steps of:

- a) forming a compound comprising at least one porous functional solid, at least one organic polymer and at least one removable rheological additive;
- b) shaping said compound into a green body;
- c) substantially or at least partially removing said rheological additive from the green body; and
- d) optionally activating the green body obtained from step c) at a temperature of at least 90 °C;

wherein said method results in the adsorbing material of claim 1.

Claim 16 (Original) A method according to claim 15, wherein the compound of step a) comprises 40 to 70 wt.% of porous functional solid, 20 to 50 wt.% of organic polymer and 0.5 to 25 wt.% of removable rheological additive, in each case relative to the weight of the total compound.

Claim 17 (Original) A method according to claim 15 ~~or 16~~, wherein the removable rheological additive has an evaporation and/or 25 decomposition temperature of 140°C to 300°C, ~~preferably from 160°C to 240°C and more preferably from 180°C to 220°C~~, provided that the removable rheological additive is subjected to heat treatment at said evaporation and/or decomposition temperatures for a duration of at least 1h.

Claim 18 (Original) A method according to ~~any of claims 15 to 17~~, wherein the removable rheological additive is selected from waxy components and/or oils.

Claim 19 (Original) A method according to claim 18 wherein the waxy component comprises ~~is selected from~~ natural waxes, semi-synthetic waxes, synthetic waxes, modified, oxidized or microcrystalline forms of the aforementioned waxes and any combination of these.

Claim 20 (Original) A method according to claim 18 ~~or 19~~, wherein the waxy component is a synthetic wax, preferably a polyolefin wax, ethylene-vinyl acetate copolymer, ethylene-vinyl alcohol, polyolefin glycol, amide wax or any combination of these.

Claim 21 (Original) A method according to ~~any of claims 15 to 20~~, wherein steps a) and b) are carried out continuously.

Claim 22 (Original) A method according to ~~any of claims 15 to 21~~ wherein in step b) shaping of said compound into said green body is performed by extrusion or injection molding.

Claim 23 (Original) A method according to ~~any one of claims 15 to 22~~, wherein in step c) the rheological additive is removed by heat treatment, extraction, particularly solvent extraction, and any combination of these.

Claim 24 (Canceled).

Claim 25 (Original) A method according to claim 24 wherein the heat treatment is carried out at a temperature of 140°C to 300°C, ~~preferably 160°C to 240°C and more preferably 180°C to 220°C.~~

Claim 26 (Canceled).

Claim 27 (Original) A method according to claim 23, wherein solvent extraction is used, optionally supported by ultrasonic treatment.

Claim 28 (Original) A method according to claim 27, wherein the solvent extraction is carried out at a temperature of 20°C to 120°C, ~~preferably 50°C to 90°C and more preferably 60°C to 80°C.~~

Claim 29 (Canceled).

Claim 30 (Original) A method according to ~~one of claims 27 to 29~~, wherein the extracting solvent ~~is selected from~~ comprises water, C₁-C₆ alcohols, C₃-C₈ ketones and any combination thereof.

Claim 31 (Original) A method according to claim 30, wherein the extracting solvent further comprises at least one emulsifier.

Claim 32 (Canceled).

Claim 33 (Canceled).

Claim 34 (Canceled).

Claim 35 (Canceled).

Claim 36 (Canceled).

Claim 37 (Canceled).

Claim 38 (Canceled).

Claim 39 (Canceled).

Claim 40 (Canceled).

Claim 41 (Canceled).

Claim 42 (Canceled).

Claim 43 (Canceled).

Claim 44 (Canceled).

Claim 45 (Canceled).

Claim 46 (Canceled).